

REMARKS/ARGUMENTS

Claims 39-47 are pending herein. Claims 42-45 have been withdrawn from consideration by the PTO as being drawn to a non-elected species, but are being maintained because each claim depends directly or indirectly from claim 39. Pending claim 39 has been amended as supported by Fig. 4 of the present application, for example.

Examiner Vu is thanked for courtesies extended to Applicants' representative (Steven Caldwell) during a telephonic interview on July 6, 2004. The substance of that interview has been incorporated into the following remarks.

1. Claims 39-41 and 46 were rejected under §103(a) over Hayes et al. in view of Zhu et al. To the extent that this rejection might be applied against amended claim 39 (and all claims depending therefrom), it is respectfully traversed.

With reference to Fig. 4 of the present application, for example, pending claim 39 recites, among other things, that a connection construction includes a plurality of elastically deformable pins 14 detachably inserted into through holes in a circuit board. Pending claim 39 has been amended in order to clarify that a lower surface plane of thin strips 12 includes a recess portion (i.e., cut outs 14e, 14d) and the elastically deformable pins are positioned within the recess in the lower surface plane of the thin strips. The applied prior art of record, discussed below, does not disclose or suggest this claimed feature.

Applicants discovered that positioning the elastically deformable pins within a recess in the lower surface plane of the thin strips produces an extraordinarily large bending elastic force in the pins along a direction substantially vertical to the thickness direction of the pins. Such a large bending elastic force results in a more electrically stable and mechanically secure connection between the elastically deformable pins and a circuit board (e.g., see paragraph [0038] of the specification).

With reference to Figs. 3A and 3B of Hayes, the PTO alleges on page 2 of the Office Action that the tips of ground and signal feeds 36 and 37, respectively, correspond to elastically deformable pins, as claimed. Notwithstanding this statement in the Office Action, all of Hayes' drawings clearly show that the base portion of each of the ground and signal feeds terminates at the lower surface plane of antenna 30, which does not include a recess portion as claimed. Therefore, the base portions of Hayes' ground and signal feeds are not positioned within a recess in the lower surface of the antenna element. Moreover, none of Hayes' drawings show elastically deformable pins extending from the lower end surface of the ground and signal feeds themselves, let alone that such pins are positioned within a recess in the lower end surface of the ground and signal feeds.

Zhu does not cure the above-discussed deficiencies of Hayes. The PTO states on page 3 of the Office Action that Zhu is relied upon solely for disclosure of inserting elastically deformable pins into through holes in a circuit board in such a way that the pins do not extend below the lower surface plane of the circuit board. Nevertheless, it is abundantly clear that even if the tips of Hayes' ground and signal feeds were modified to include the lug structure 42 shown in Zhu's drawings, there would still be no disclosure or suggestion that the base of lugs 42 should be positioned within a recess portion in the lower end surface of Hayes' ground and signal feeds. Therefore, even if Hayes and Zhu were combined as asserted in the Office Action, there would still be no disclosure or suggestion of each and every element recited in pending claim 39.

In view of all of the foregoing, reconsideration and withdrawal of the §103(a) rejection over Hayes and Zhu are respectfully requested.

2. Claims 39 and 47 were rejected under §103(a) over Hayes in view of Jones. To the extent that this rejection might be applied against amended claim 39, it is respectfully traversed.

The deficiencies of Hayes with respect to pending claim 39 have been discussed above. Fig. 6 of Jones shows that a press-fit contact 1 includes a head portion 11, from which a retaining mounting portion 12 extends. Similar to the Zhu patent discussed above, the PTO states on page 6 of the Office Action that Jones is relied upon solely for disclosure of inserting elastically deformable pins into holes in a circuit board such that the pins do not extend beyond the lower surface plane of the circuit board. It is abundantly clear, however, that even if the tips of Hayes' ground and signal feeds were modified to include the head and retaining mounting portions 11 and 12, respectively, disclosed in Jones, there would still be no disclosure or suggestion that the head portion 11 should be positioned within a recess in the lower surface plane of Hayes' ground and signal feeds. That is, it is clear that each of the lower end surfaces of Hayes' ground and signal feeds and Jones' press-fit contact does not include a recess from which an elastically deformable pin could extend. As such, even if Hayes and Jones were combined as asserted in the Office Action, there would still be no disclosure or suggestion of each and every element recited in claim 39.

In view of all of the foregoing, reconsideration and withdrawal of the §103(a) rejection over Hayes and Jones are respectfully requested.

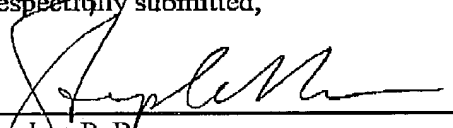
Examiner Vu's attention is drawn to the Information Disclosure Statement submitted on September 21, 2004 citing two references for consideration by the PTO (submitted subsequent to the pending Office Action). Consideration and entry of the September 21, 2004 IDS are respectfully requested.

If Examiner Vu believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, she is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

October 14, 2004
Date


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